

AN EXPERIMENT TO EVALUATE UNCERTAINTY VISUALIZATION **TECHNIQUES FOR DECISION-MAKING IN A BUSHFIRE SITUATION**

Lisa Cheong¹, Susanne Bleisch², Matt Duckham¹, Allison Kealy¹ and Kevin Tolhurst³

¹ Department of Infrastructure Engineering, The University of Melbourne, Victoria Imcheong@student.unimelb.edu.au ² University of Applied Sciences and Arts Northwestern Switzerland ³ Department of Forest and Ecosystem Science, The University of Melbourne, Victoria

BACKGROUND

PHOENIX Rapidfire is fire spread modelling software that uses a variety of different inputs to predict bushfire spread. As with all models, there is uncertainty associated with the output. Therefore, evaluation of different visualizations is required to determine how best to display and communicate this uncertainty. This research utilizes human subject experiments to evaluate the suitability of several visualization techniques for decision-making under uncertainty in bushfires. The design and delivery phase of the experiment are summarised by the following diagrams.













Department of Sustainability **Orla** and Environment